Mr. LOTT. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. CAMPBELL). Without objection, it is so ordered.

NUCLEAR WASTE POLICY ACT OF 1996—MOTION TO PROCEED

The Senate continued with the consideration of the motion to proceed.

Mr. LOTT. Mr. President, after discussion with the Senators who are involved in this nuclear waste issue, I believe we have reached a consent agreement as to how we can proceed for the remainder of today and into tomorrow.

Therefore, I ask unanimous consent that notwithstanding rule XXII, that Senators REID and BRYAN each be granted 3 hours for debate; that there be 2 hours for debate under the control of Senator MURKOWSKI and 1 hour under the control of Senator JOHNSTON; and that the vote occur on the motion to proceed to S. 1936 at 1 p.m. on Wednesday, July 17.

The PRESIDING OFFICER. Is there objection?

Mr. REID. Reserving the right to object, and I shall not object, I want to make sure I understand the unanimous consent agreement. Senators REID and BRYAN, between them, would have 6 hours; is that right?

Mr. LOTT. Each would be granted 3 hours. So, yes. Then there would be 2 hours, as I said, under the control of Senator MURKOWSKI; 1 hour under the control of Senator JOHNSTON. I think it is a fair agreement of time for all involved.

In the meantime, we can see if we can work out an agreement on how to deal with the gambling commission. We also will begin working on how to proceed at some point, hopefully early tomorrow afternoon, to the DOD appropriations bill.

Mr. DORGAN. Will the Senator yield for a question?

Mr. LOTT. Yes, for a question.

Mr. DORGAN. Will there be additional record votes today?

Mr. LOTT. I was going to make that announcement once we got the agreement.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. LOTT. Mr. President, in view of the agreement that has been reached, so that Senators can proceed with the debate, I announce that there will be no further recorded votes during today, Tuesday. The first vote then will occur tomorrow at 1 o'clock.

The PRESIDING OFFICER. Who yields time?

Mr. REID. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. REID. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered. The Senator is recognized.

Mr. REID. Mr. President, I state to the majority and minority leaders my appreciation for allowing this orderly process. I think everyone recognizes that the end result is the same. We could have done a lot of parliamentary things and exhausted the Senate, but I think what the two leaders have come up with is fair. In effect, the point was made earlier today when we got 34 votes that we felt were critical on this issue.

Mr. President, this issue is important. It is important for a number of reasons, not the least of which is the issue of transportation of nuclear waste.

We have heard a lot about transportation, as well we should. The fact of the matter is that those States that have nuclear waste, if they think by some stretch of the imagination by this bill passing it is going to get nuclear waste out of the States, it is not going to do it. The nuclear reactors have nuclear waste in them now, and they will continue to have nuclear waste in them as long as they are producing energy, and long thereafter.

The fact is that the transportation of nuclear waste is a difficult issue. In 1982, when the Nuclear Waste Policy Act passed, there was discussion at that time that there was no way to transport the nuclear waste. There was no way to transport it. In the 14 years since the Nuclear Waste Policy Act passed, scientists have been working, trying to develop a means of transporting nuclear waste. What they have come up with is something called a dry cask storage container. I really do not know how it works. It is scientifically above my pay grade. But it works to this extent: It is certainly a lot better than what we had in 1982, and they are working on it all the time to make it better. The reason the environmental community and this administration, among other reasons, thinks this legislation is so bad is that there is no way to safely transport nuclear waste today.

Right now, these dry cask storage containers are set up so that if there is an accident that occurs and the vehicle carrying the canister is going 30 miles an hour or less, then it will be safe. But if the vehicle is going faster than 30 miles an hour, the canister will be breached, and the product within this canister will spew forth.

The canister is also set up to withstand heat, but the only thing they have been able to do, to this point, is make sure that if a fire is less than 1,400 degrees and burns for only a half hour, the canister will be safe. But if the canister burns for more than a half hour at temperatures—it is actually 1,380 degrees—then the canister, again, will be breached.

The reason that is so important, when we talk about transportation, is the fact that we all know that trains and trucks, which will be the vehicles carrying these canisters, use diesel fuel. Diesel fuel burns as high as 3,200 degrees. The average temperature of a diesel fire is 1,800 degrees. So that is more than 325 degrees higher than these canisters are set up to protect.

So that is why people are saying, we are glad we have made the progress with these canisters, because you can put spent fuel rods in a canister, put it in this room, drive a truck into it going 30 miles per hour, setting a fire, and you are in pretty good shape. But you try to transport these nuclear spent fuel rods in these canisters, it will not work.

We know that we have already had seven nuclear waste accidents. We know that there is one accident for about every 300 trips. If you multiply this, Mr. President, this is going to be traveling all over the United States—the rail is in blue, the highway is in red. We are going to have a lot of accidents. Very rarely do you see a truck with a load going less than 30 miles an hour. Very rarely do you see a fire in a train—truck fires you can put out pretty quickly—but train fires we know last year we had one that burned for 4 days. So people are extremely concerned.

Mr. President, we have here a chart that is quite illustrative. This is, of course, a train accident. We know that there is an average of about 60 train accidents a year. Last year was an especially bad accident time. There were accidents all over the United States. We had one that we were very familiar with in Nevada because on the heavily traveled road between Los Angeles and Las Vegas there was a train track located more than a mile from the freeway. A train caught fire, and the freeway was closed, off and on, for 3 days, totally closed, as a result of this accident.

So accidents do happen. We have 43 States at risk where there are going to be huge amounts of nuclear products carried through the States. Alabama, 6,000 truckloads, 783 trainloads. Colorado, 1,347 truckloads, 180 trainloads. Remember, Mr. President, when we talk about trainloads, we have some trains that are almost 2 miles in length—2 miles worth of train. So when we talk about a State like Maine that is going to have 100 trainloads, that is a lot of stuff that is going to be carried.

Our Nation's nuclear powerplants, Mr. President, are operating. We have not had any new nuclear powerplants in a long time. We will probably never in our lifetime have another one. So what are we talking about? We are talking about 109 nuclear powerplant reactors. These reactors operate in about 34 different States. The nuclear waste that is produced from these powerplants presently is placed in one of two places. First of all, they go into cooling ponds. Then after they take the product out of the cooling ponds, in that they have developed dry cask storage containers, then they put them in

the dry cask storage containers. There is a nuclear powerplant in Maryland where they have a dry cask storage facility at the nuclear plant. It is very inexpensive to maintain. It works extremely well. As a result of that, scientists have said this is not a bad way to go.

The reason that dry cask storage containers onsite is so attractive is that, as I indicated, Mr. President—I misspoke. I am sorry. I did not have my notes in front of me. Train accidents—I said 60 train accidents a year. I was way low on that. There are 2,500 train accidents a year. Rail crossings alone, we have 6,000. An accident is deemed to be something where the damage is in excess of $6,300. I do not know where they came up with that figure, but that is how they list a train accident. There can be a train accident where the damage is only $5,000. That is not listed. Hazardous material accidents, there are about 30 each year.

The reason that a number of persons are concerned about S. 1936—I would indicate, Mr. President, that the 34 votes, I believe, is a low-water mark. We have a number of Senators who always vote on motions to proceed. We have a number of Senators who stated that no matter what happens in the substantive debate on this issue, they will vote to sustain the President's veto. So we are doing fine there.

I want to go over a few things that I think are important. S. 1936 really tears apart the existing law as it relates to the environment of this country. S. 1936 sets aside clean water, clean air, Superfund, all the environmental laws that we have developed during the past 25 years. I believe, Mr. President, that it is corporate welfare at its worst. It will needlessly expose people across America to the risk of a nuclear accident, as we have indicated on this chart and on the previous chart. It is providing an inadequate framework.

Let me also say this, Mr. President. I do not like the permanent repository. I wish it were not being characterized in Nevada. But the fact of the matter is, it is. And even though initially the State of Nevada filed lawsuits and did everything we could to oppose it—we put up a fair fight, and the powers to be have prevailed in that instance—the siting of the permanent repository in Nevada is going forward.

They expect to determine by 1998 or early in 1999, at the very latest, as to whether that site is viable, whether that site will be something that scientists say you can place nuclear waste at Yucca Mountain. But that is a fair fight. It is a fight where there were rules, and people got in the ring and they sparred, and the round ended and they went back and rested and came back and fought some more. It is a fair fight being determined by science.

That is why the end run of the nuclear power industry has been so unfair here. S. 1936 would effectively end the work on the permanent repository and compromise the health, safety, and environmental protections the citizens deserve and they currently enjoy. It would create an unneeded and costly interim storage facility and expose the Government and the citizens to enormous financial risk.

I stated previously that the President stated he will veto this bill in its present form since it will designate interim storage at a specific site before the viability of a permanent repository has been determined. The President said that in a letter that he wrote to Senator DASCHLE today.

The technical review boards commissioned by our Government—and I say that plural—technical review boards have consistently found there is no immediate or anticipated risk in continuing at-reactor dry cask storage for several decades.

In 1987, the Congress set up the Nuclear Waste Technical Review Board, a group of scientists with no political aims, goals, or aspirations. They are pure scientists that were asked to make a determination as to whether or not there should be offsite storage; that is, should they take it from the site and move it to an interim storage facility? These individuals said, definitely no.

S. 1936, in a backhand—I should not say backhand—just a slap in their face, in effect. It takes their power away from them, which is what has happened in this interim storage battle. In effect, what they have done is they have said, ''If you don't do what we say you should do, then we're going to get rid of you legislatively.'' And that is wrong.

Mr. President, S. 1936 directly contradicts the nonpartisan Nuclear Waste Technical Review Board. In March of this year, the Nuclear Waste Technical Review Board, a nonpartisan oversight body established by Congress under the Nuclear Waste Policy Act, issued a report entitled ''Disposal and Storage of Spent Nuclear Fuel, Finding the Right Balance.'' In the report the question was asked whether a centralized interim storage facility is necessary.

They said, unequivocally, a centralized interim storage facility is not necessary. The board found that there was no compelling technical reason for moving nuclear waste to a centralized storage facility at this time. This is not the Senator from Idaho or the Senator from Nevada making a decision as to what should be done with spent nuclear fuel. This is a nonpartisan Nuclear Waste Technical Review Board that said emphatically there is no compelling technical reason for moving nuclear fuel, nuclear waste to a centralized storage facility. ''The methods now used to store spent fuel at reactor sites are safe,'' a direct quote from the report, ''and will remain safe for decades to come.'' That is from the technical review board.

Furthermore, the board concluded that it makes technical, managerial, and fiscal sense to wait until a decision is reached on Yucca Mountain before beginning development of a centralized storage facility. It is clear that we are not prepared to open a centralized storage facility. The board noted that establishing a transportation system requires the acquisition of trucks, railcars and casks, the establishment of transportation routes, and the development of emergency preparedness plans at the affected State and local levels. The Federal Government could not begin accepting spent fuel before well after the turn of the century, and maybe not even then in significant amounts.

My colleague, Senator BRYAN, this morning talked about the report, ''Disposal and Storage of Spent Nuclear Fuel—Finding the Right Balance.'' That is the report by the Nuclear Waste Technical Review Board. They gave this report March 20, 1996. What was this report? It was not a report to a Senator from New Hampshire or a Senator from Vermont, a Senator from Massachusetts, Kansas, California, Nevada, Idaho or anywhere else. It is a report to Congress and the Secretary of Energy where these scientists went through great pains to come up with an appropriate decision.

Now, the people that made this decision, saying there is no reason to move spent nuclear fuel, are people with some pretty strong credentials: Doctor John E. Cantlon, chairman, Michigan State University; Dr. Clarence R. Allen, California Institute of Technology; Dr. John W. Arendt, he is a private consultant; Dr. Garry D. Brewer, University of Michigan; Dr. Jared L. Cohon, Yale University; Dr. Edward Cording, University of Illinois at Urbana-Champaign; Dr. Donald Langmuir, Colorado School of Mines, emeritus, one of the premiere scientists of America, from the Colorado School of Mines. He has associated with the Mackay School of Mines over the years and is somebody who people really understand in the technical disposal of waste, mine waste, other kinds of waste; Dr. John L. McKetta, University of Texas at Austin, emeritus, another person who is a scientist who is retired and is noted for his scientific expertise; Dr. Jeffrey J. Wong, California Environment Protection Agency; Dr. Patrick D. Domenico, Texas A&M University; Dr. Ellis D. Verink, Jr., University of Florida; Dr. Dennis L. Price, Virginia Polytechnic Institute and State University. These are the men that came up with this report. These are people who did not just drop by and say, ''I have credentials, will you let me be on the board?'' These are people that were chosen because of their expertise. They would be nonpartisan. We do not know if they are Democrats, Republicans or Independents. Their report certainly indicates that they did what they felt was the right thing from a scientific standpoint.

Summary of board recommendations: ''Developing a permanent disposal capability should remain the primary

goal.'' That is what the President said in his letter. The board recommends the next several years that we not be concerned about interim storage. We cannot lose sight of what the goal is because siting of a centralized storage facility may be difficult. The board recommends that they continue with their characterization at Yucca Mountain.

That is, in effect, what scientists have told us. That there is no reason for this legislation, that we do not have to worry about the safety, we do not have to worry about what is going on, onsite. They have said that everything is going to be better if we leave it where it is than if we try to move it.

Mr. President, we have had a significant number of groups take a look at this. As the Presiding Officer knows, I have not always agreed with environmental groups. The Senator that is presiding and I have been in some knockdown drag-out battles where we have opposed the environmental communities because we felt they have been wrong and the issues are important to the western part of the United States.

On this issue, there has not been a single environmental group that supports S. 1936—not one. They have all opposed this. It is unnecessary and it is absolutely wrong. We can look at, for example, Public Citizen. They say they oppose it for a lot of reasons, but this group is representative of the entire environmental community. S. 1936 opens the door to the unprecedented transportation of high-level waste and fails to address concerns about shipment safety. They are not saying that someday there might not have to be shipments of high-level nuclear waste. All they are saying is that before we do that, address the concerns about shipment and safety.

Mr. President, here is a map of the United States. Most of the nuclear waste is produced in the eastern and southern part of the United States. That is why these groups and others are saying, ''Slow down, leave it where it is.'' There are certain places in the country, like St. Louis, Denver, Salt Lake, Atlanta, and all these places become crossroads of hauling nuclear waste.

Why do we continually talk about nuclear waste? Why do we talk about how bad nuclear waste is? We talk about how bad it is because it is the worst product that man has devised. Mr. President, when we are dealing with the issue of spent nuclear fuel, we are dealing unquestionably with an issue of great risks and significant danger. It is not something that we should deal with lightly. We have taken for granted here that everyone understands why we are concerned about nuclear waste—not why we in Nevada are concerned about nuclear waste, but why the country is concerned about the transportation of nuclear waste. Why Public Citizen and all other environmental groups are saying that this bill fails to address the concerns about shipment safety. We tend, I guess, to take for granted that everyone understands how poisonous, how dangerous, this substance is.

Without being repetitive, and I have not talked about this since I have been able to speak on this bill, let me talk a little bit about the dangers of this product, spent nuclear fuel. It is not a topic we should be rushing through here. The topic deserves our attention. In fact, Mr. President, the Washington Post indicates today that this legislation is extremely important. I will read from part of this article.

> Anxious to rid itself of the accumulating waste and liability that it represents, and fearful that the Federal studies could bog down, the nuclear lobby is pushing a bill to designate an ''interim'' storage site in Nevada that would not have to meet all of the standards of a permanent facility. . . A cloture vote will be held today to cut off their filibuster; they expect to lose. But the president has also threatened a veto, and the Nevadans think they could sustain.
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> We hope they do, if necessary. The interim bill is the wrong way to solve what is not yet a fully urgent problem. It may well be that there is no alternative to permanent storage—some people think a timely way may yet be found to detoxify the waste instead. It also may be that Yucca Mountain is the best available site. But this is too important a decision to be jammed through the latter part of a Congress on the strength of the industry's fabricated claim that.

This is an emergency. It really is, Mr. President. This is a fabrication. There is no emergency.

We are concerned. In our environmental laws, there is a right to know. If there is a plant in your town belching out smoke, you have a right to know what it is belching out. The people of this country have a right to understand how deadly nuclear waste is. A typical spent fuel rod assembly, when removed from a reactor, has hundreds of pounds of uranium, tens of pounds of other nuclear fissionable products, and pounds of plutonium. It is deadly. Being exposed for just seconds to an unshielded fuel rod is lethal. You do not have to be exposed to it for hours or days. The casks of spent fuel that will be shipped under the provisions of S. 1936 will contain most, if not all, of these assemblies. All of these fission products are extremely dangerous.

The radioactive iodine causes thyroid cancer. The radioactive strontium causes bone cancer. Cesium, plutonium, uranium all lead to their own forms of cancer. We know how dangerous uranium is. We had a man who came from the State of Colorado in the sixties, when uranium was such a big deal. He came to Nevada, and he was so wealthy because he had uranium mines in Colorado. He came to Nevada because he wanted to mine uranium in Nevada. He spread money around like it was going out of style. We did not know. My dad was a miner. Nobody knew, and he did not know of the dangers of working in a mine where you mined uranium, dirt, and rock. We learned later that it killed people, made them very sick. It did not kill them quickly, but it made them sick and killed them. We know that uranium leads to all forms of cancer.

Those who doubt these risks only need to look at Chernobyl. That is what we are talking about. We are talking here about transporting nuclear waste. We have heard it referred to as a ''mobile Chernobyl.'' Childhood cancers at Chernobyl are at an extremely elevated level, and other cancers can be expected soon.

Again, without talking at great length about the Presiding Officer—he is easy to talk about—the Presiding Officer had the opportunity to go to the Olympics. We have the Olympics coming up soon, starting this Friday. I remember that great little gymnast from Russia that we all admired. She weighed less than 100 pounds and had the strength of a 500-pound person. She could bound through the air. Her name is Olga Korbut. She is now sick. She lives in the United States, and she is sick as a result of Chernobyl. She lived 100 miles away, and she now has an incurable form of cancer from Chernobyl.

The result of exposure to these same nuclear fission products will make you sick. Some will say the spent fuel is not the same as the fuel in the Chernobyl reactor, and the amounts of fuel in the shipping containers and in the reactor are very different. Generally, that is true—not that the stuff in the container is not bad. It is bad. But, remember, when you breach one of the canisters—and you can do it in an accident going more than 30 miles an hour and in a fire that lasts more than 30 minutes and is hotter than 1,475 degrees. There are other subtle differences. The aggregate fuel to be shipped is a fuel from many reactors, the equivalent of thousands of reactors of fuel. Therefore, the risks are extremely significant. These nuclear fission products are the same kind of fission products that spread from Chernobyl. They are no different.

Spent fuel is deadly. Even fuel that has been cooled in ponds for decades is deadly. People know that. That is one reason they want to get the stuff out of their backyards. Mr. President, I said earlier today, and I say it now, S. 1936 is not going to get all the spent fuel out of the yards. It is going to create more problems in the State where you are going to try to transport it, until we can do it safely. Yes, S. 1936 will put this deadly waste on the highways earlier than is necessary, before we have had time to assure that it could be moved safely. We know it is safe where it is. We have not had, in the United States—thank goodness—a single accident where someone has gotten hurt as a result of spent fuel stored in a cooling pond; not a single accident. That is why this group of eminent scientists said everybody should cool it, take it easy, we do not need to rush into transporting nuclear waste. Leave it where it is. We know it can be kept safely where it is for the next 10 years. If it is

put in the dry cask storage containers, it can be kept up to 100 years. This is no time to send this dangerous material down the highways and railways. Let us remember that this is not like a garbage barge traveling down the Mississippi or another great river system.

Mr. President, I also want to comment on a vote cast by the junior Senator from the State of Indiana. The Senator voted against the motion to proceed today. His vote and the vote of the Presiding Officer made the difference in our being able to get 34 votes, which was the magic number we sought today. I have not spoken to the Senator from Indiana, but I am certain the reason he made that courageous vote is because he, being from the State of Indiana, knows what it means to accept garbage and to be forced to accept it. I have joined arm in arm with the Senator from Indiana in years gone by, saying I agreed with him that he should not be forced to accept huge truckloads of garbage. Well, he voted in a very courageous way, for which I will always be grateful. I will tell him that when I have the opportunity. His vote made the difference today.

This product is not like the garbage that the junior Senator from Indiana complains of. It is garbage, but it is much more dangerous than the garbage that the Senator from Indiana has attempted, and done quite well, to keep out of his State. This is not like the garbage barge that they could not figure out where to put and nobody would accept the garbage. This waste kills people. If there is an accident, just by being around it can make you sick. This is not just some stinking, repulsive, foul waste. This is deadly waste—deadly in the true sense of the word.

Mr. President, one of the things I wanted to talk about today for a little while is States rights. The reason I want to talk about States rights is this. We talk a lot about States rights in this body. This Congress, I think, has done a great job, Democrats and Republicans, in recognizing that there comes a time when you have to back off from having the Federal Government do everything. There comes a time in this Federal system when we recognize that there is a central whole, Federal Government divided among the three branches, and the States. That is what we have. In the last several decades, we have kind of forgotten about the self-governing parts and focused everything on the central whole. If we have done nothing else in this Congress, we have said we are going to try to get more power back to the States. We have done it with unfunded mandates. We have done it with, hopefully, the welfare reform bill that I hope will pass. Things are sounding real good about that, returning power back to the States. S. 1936 tramples on States rights.

Here is, for example, what it says. This is right from the bill:

> If the requirements of any law are inconsistent with or duplicative of the requirements of the Atomic Energy Act and this Act, the Secretary shall comply only with the requirements of the Atomic Energy Act and this Act in implementing the integrated management system. Any requirement of a State of political subdivision of a State is preempted if—
>
> (1) complying with such requirement and a requirement of this Act is impossible; or
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> (2) such requirement, as applied or enforced, is an obstacle to accomplishing or carrying out this Act or a regulation under this Act.

What does ''obstacle'' mean? Does that mean the Secretary of Energy does not want to spend another $1,000 traveling to wherever it might be? It is simply really stretching things to say that States rights will be done away with, abrogated, finished if there is an ''obstacle'' to accomplishing this act. That is not how we operate in this country. It has not been in the past how we operated.

Remember the 10th amendment.

> The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

I hope, Mr. President, that people can see this proposed legislation for what it is. It tramples on States rights. This bill denies due process and the States rights to protect their citizens. It denies due process by legislating illegal injunctions against intrusive activity.

The sponsors will say, ''Well, you will get your day in court.'' That is like saying you will get your day in court after we have spent 2 weeks with the jury alone giving them our statement of facts, and then go ahead and try to change their minds. The bill says not until a lot of the actions have assured that a done deal has been instituted. In fact, what they are saying is, ''Sure, you are going to be able to go to court, but only after we accomplish what we set out to accomplish in the act.''

It reverses the Nation's progress toward assuring our offspring a safe and nurturing environment. It does this by delaying the assessments of the consequences until the groundwork has already been done. The sponsors will say, ''Well, we have not started construction yet.'' But the bill mandates land withdrawal and acquisitions of rights-of-way and development of rail and roadway systems prior to the development of an environmental impact statement. Damage has already been done to communities and their economic opportunities before the assessment is executed.

These abuses of legislative powers, which would relieve the nuclear-power-generating industry of its serious responsibility to manage and fund its business affairs, are outrageous. On that basis alone, we should not allow this legislation to proceed forward. It is amazing to see such an attack on States rights—from a Congress that professes, and I think has shown by action, to be working to enhance States rights—is allowed to proceed. Past efforts to craft a nuclear waste policy for the Nation have honored States rights.

That is one of the things that we in Nevada have been proud of, that we have had the ability to fight the permanent repository. I think one of the things we have done in ''fighting''—for lack of a better word—the Senator from Alaska and the senior Senator from Louisiana, has been to allow us States rights. We have been able to effect most of what we have wanted through these efforts legislatively. We have not liked everything, but, generally speaking, we have been able to protect the rights of the States.

In 1982 and again in 1987, legislative action assured NEPA protections for all States. This is no longer true under this bill.

In 1982 and again in 1987, legislative action assured that there would be no double jeopardy for individual States. Under this proposed legislation, this is no longer true. Under this bill, this is no longer true.

In 1982 and again in 1987, States were assured that they would be informed of all actions related to the Federal Government's efforts to site an interim storage facility in their State. This is no longer true under this legislation.

In 1982 and again in 1987, States were afforded the opportunity to disapprove Federal efforts to site waste repository in their States. This is no longer true under this legislation.

In 1982 and again in 1987, there were limits on interim storage in an effort to keep the storage truly interim. In effect, they said that you cannot have an interim storage facility or a permanent repository in the same State. It is no longer true under this bill.

Under this bill, the first phase of interim storage of up to 15,000 metric tons will satisfy the industry's storage needs for 20 years or more. With the expansive provisions in this legislation to go up to 60,000 metric tons, this will be an interim facility for well over 100 years. This is hardly a bill about interim storage. This is a permanent storage bill hidden in interim storage language. Why would anyone propose interim storage for 100 years if they were truly dealing with the interim storage problem?

This is just what Nevadans have always feared—a back-door attempt to site permanent storage under the guise of interim storage.

Mr. President, we have talked today briefly—and it is part of this RECORD—about the President stating in writing, as he has before, that he is going to veto this bill. The first time I ever met with the President was when he was then Governor of Arkansas approximately 4 years ago. One of the discussions that the two Senators from Nevada had with the person running for President was, What about nuclear waste? We explained it to him and spent 40 minutes with him at National Airport the first time I ever met him. My colleague had met him. They had served as Governors together. But he focused on this issue. He understood this issue. He said we should go forward with the permanent repository

and find a place to locate this. He was not aware of nuclear waste. He is from Arkansas, and they have a nuclear power facility in Arkansas. But he said it is unfair to short-circuit the system.

That is, in effect, what he says in the veto message.

> The administration cannot support this bill. The administration believes that it is important to continue working on a permanent geologic repository. The Department of Energy has been making significant progress in recent years, and is on schedule to determine the viability of the site in 1998.

Now, my friend, the senior Senator from Louisiana, knows how we have fought the permanent repository. But it has been a fair fight. It has been fair to the extent that science has directed and dictated what we have done, what has occurred at Yucca Mountain. For those who say this permanent repository is going nowhere, try to tell that to the people who are working at Yucca Mountain. They have bored a hole in the side of a mountain that is bigger than this room and it is 2 miles deep. The permanent repository is being characterized as they put this huge auger through this mountain. They are continually running core samples to find out where the faults are and what the water tables are. There is tracking going on to determine about earthquakes, about potential volcanic action in those mountains—characterization of Yucca Mountain is going forward, and that is what the President is talking about. Designating the Nevada test site as an interim waste site as S. 1936 effectively does will undermine the ongoing Yucca Mountain evaluation work by siphoning away resources. Perhaps more important than that, this bill will destroy the credibility of the Nation's nuclear waste disposal program.

Some have alleged we need to move spent commercial fuel rods to a central interim site now. I repeat, for the third or fourth time today, ''According to a recent report from the Nuclear Waste Technical Review Board, an independent board established by Congress, there is no technical or safety reason to move spent fuel to an interim central storage facility * * *.'' The Nuclear Waste Technical Review Board assures us that ''adequate at-reactor storage space is and will remain available for many years.'' That is what the President of the United States says, Mr. President.

Mr. President, we need to take a look at what was stated in the Washington Post today. I will close this part of the discussion by stating what the Washington Post has said today:

> (T)his is too important a decision to be jammed through the latter part of a Congress on the strength of the industry's fabricated claim that it faces an emergency.

That is a direct quote. It is not the statement of the Senator from Nevada, even though I totally agree with it.

At this time, Mr. President, I reserve the remainder of my time and yield the floor to the Senator from Louisiana.

The PRESIDING OFFICER (Mr. THOMAS). The Senator from Louisiana [Mr. JOHNSTON] is recognized.

Mr. REID. I say to my friend, I am going to depart the Chamber and he is going to talk until 12:30 or thereabouts?

Mr. JOHNSTON. Or thereabouts. I thank my friend from Nevada for making it possible for me to speak now, which does comport well with my schedule.

Mr. President, one of the most curious things about this whole debate to me is how my friends from Nevada can be so opposed to the storage of nuclear waste when they have not only countenanced but welcomed and sought the explosion of nuclear tests in Nevada. What Nevada has done through the years is sought and received hundreds of nuclear tests.

The technology for those nuclear tests in the past has been: You drill a deep hole and you explode this nuclear test which, in turn, leaves the full spectrum of nuclear waste we are talking about, nuclear waste from civilian nuclear plants. Cesium 137, strontium 90, plutonium—all of it is contained in what amounts to big, bulbous holes down deep in the ground. Some of those tests were actually detonated in the water table. And there are hundreds of them. When the Nevadans sought to oppose the limitation on nuclear testing, they made the case that the country needs the tests and that they need the jobs. They were unsuccessful in maintaining that a couple of years ago, here on the floor of the Senate, because of the Senate's concern with nonproliferation. But it was not their fault. And they have never yet stated there is any problem at all with having hundreds of these round domes caused by explosions containing strontium, cesium, plutonium, and the full spectrum of nuclear waste.

How could that be? Mr. President, I suggest they were right in the first instance; that the geography of Nevada in this particular area, which is the same area where we want to store the civilian nuclear waste, is so dry and so rocky and so devoid of people that it is, in fact, a safe place to conduct these nuclear tests. And, believe me, if it is safe to conduct hundreds of nuclear tests it is much more safe to store civilian nuclear waste under Yucca Mountain in containers which themselves pose quite a barrier to any contamination, and I believe the storage area is at least 200 meters through solid rock above the meager water table which you have, which, as I say, has already been, to the extent it can be contaminated—already been contaminated by the nuclear explosions.

Mr. President, this bill deals with both interim storage and permanent storage, or the repository. Why do we wish to have interim storage mentioned, and what does the bill do? The bill says this, and this is the new bill. It says you shall proceed to do design and long lead-time items for the interim storage facility, but that construction on the interim storage facility may not begin until December 31, 1998, over 3 years from now. But, in the meantime, those long lead-time items like design, like the environmental impact statement, can proceed.

It further states that the suitability determination must be made by December 31, 1998—suitability of the repository. This, in fact, was and is the chief objection of the administration to this bill. They have said all along you should not locate an interim storage facility at a place unless it also was the place at which the permanent repository shall be located. They should be colocated. You should have an interim and a permanent storage at the same place. And they have made the argument all along that, suppose the Yucca Mountain site is not suitable for the repository, then you should not put the interim storage facility there.

I proposed an amendment in the Energy Committee that said you may not begin construction until that suitability determination is made. Unfortunately, my amendment was not agreed to. The bill was reported out. But in the ensuing weeks, Senator MURKOWSKI and Senator CRAIG and I came to an agreement where we put the essential parts of the Johnston amendment back in the bill, and in effect a substitute bill has been filed and is now here for consideration. So the chief complaint of the administration all along, the chief complaint in Leon Panetta's letter today, has been answered by this legislation. Obviously, Mr. Panetta was not aware of this substitute bill, the provisions of which incorporate the Johnston amendment, because that criticism of the White House has been answered.

Why do we need to do, however, the long lead-time items now? Because it saves 3 years, Mr. President, in the building of the interim storage facility. If you wait to determine suitability before you design the interim storage facility, and before you do the environmental impact statements, you have lost 3 years unnecessarily on the ability to receive waste at the interim storage facility.

What is the problem with that? Why do we care whether you have an interim storage facility 3 years earlier? You care because all of these reactors around the country, at some 76 sites in 34 States, are using up, seriatim, one by one, their space in their so-called swimming pools.

The nuclear waste is taken and put literally in what looks like a swimming pool, a deep pool. But, as that gets filled, the nuclear facilities must, if they have no place to transport their waste, build dry cask storage on site. That dry cask storage is very expensive. We received testimony it would cost about $5 billion to build the dry cask storage if you do not have interim storage facilities in the meantime.

Mr. President, an expenditure of $5 billion for dry cask storage on site

would stick the ratepayers of this country with a very heavy load, and it is a totally unnecessary expense. For that reason, we must get on with this business of designing the interim storage facility and proceeding to do the environmental impact statements, which will take most of the time during that 3 years.

We also deal with the permanent facility. We have heard complaints from our friends from Nevada that we are short-circuiting the science. I can tell you, Mr. President, if the EPA comes up with the same rules for the permanent facility that we have for the waste isolation pilot plant in New Mexico, then we will not be able, in my judgment, to build a permanent facility anywhere, anyplace in the world. Let me tell you why and let me tell you why their requirements are really not scientific. They are estimates of, I do not know whether you call it history or human conduct or whatever.

One of the most difficult requirements in the WIPP facility is what we call human intrusion. They say that after the first 100 years—keep in mind that this facility must prove itself to be safe over 10,000 years or more—they say that after the first 100 years, you may not assume that people even know where this is; that all records are lost, all the signposts that say ''danger, nuclear waste facility,'' are all gone and nobody knows. How they came to this conclusion, how they thought that you could go backward in history—sure, we do not know where the ancient city of Mycenae is, but does anybody seriously think that you would lose the records of where this nuclear waste facility is? I mean, that literally is what they have determined in their rules for the waste isolation pilot plant.

They also say that you must assume that they will come out and start drilling holes down through the facility. Quoting from section 194.33 of the Federal Register of Friday, February 9, 1996, they say—I am quoting now to give you a little flavor of this:

> In determining the drilling rate or the amount of waste released from such drilling, performance assessments should not assume that drill operators would detect the waste and then cease the current drilling operations or otherwise mitigate the consequences of their actions.

In other words, they say that you assume the holes—and you have to assume when they penetrated the waste package that they did not stop. Further quoting, it says:

> Similarly, drill operators should not be assumed to cease further exploration and development of the resources as a result of the drillers detecting the waste.

What does that mean? That means these drillers get out there, they did not know this waste facility was there, but they drill down through a waste package and they finally detect it, but you cannot assume that they stop drilling. Mr. President, I am not making this up, that is from what EPA has said.

Can you imagine anything more silly than people putting these drill rigs on top of Yucca Mountain and drilling right down through it and penetrating a waste package and saying, ''Well, I detect nuclear waste down there, but I'm not going to stop drilling, I'm going to keep on drilling''? Mr. President, that is what it says.

In the case of the waste isolation pilot plant, it is located in New Mexico in a salt formation, in about 2,000 feet of salt. With the WIPP facility, it is probably not going to be fatal, because in the case of salt, it is very plastic. You can drill a hole through salt and that hole closes up in a matter of, I guess, weeks, months. It is a very plastic sort of thing under pressure, and it closes up.

In the case of WIPP, that is not a big problem. If they have this same kind of test with respect to Yucca Mountain, which is a tuff or volcanic sort of rocky formation, and you have holes drilled down through it, how can you ever assume it is going to be safe if you drill these holes? You cannot.

And then you combine that with the fact that they come up with, in the case of WIPP, a 15-millirem protection level for radioactivity, and I just do not think you can build a repository anywhere in the world.

In our bill, we set the standard of radioactivity at 100 millirems. Why 100 millirems? Because the natural variation in background radioactivity varies by more than 100 millirems. The natural background radiation in Washington, DC, is about 345 millirems. Let me explain that, Mr. President, because we will be debating this question of radioactivity and exposure a great deal in this bill.

A millirem—or a rem—which is one thousandth of a rem—is a measure of the amount of damage that radioactivity does to the body. Radioactivity comes from several sources—alpha, beta, gamma rays, each of which reacts differently on the body. But millirems, or rems, are able to convert the kind of radioactivity, whether it is alpha, beta or gamma radiation, and convert the pathways of that radiation, whether it is a radiation that comes through as an x ray or something you ingest by mouth or something you are exposed to from the air. It is able to convert all of those pathways and all of the different kinds of radiation to one standard measurement of harm to the body. That is what they call a rem, or a thousandth of a rem is a millirem. So it does not matter whether you are drinking water or whether you are exposed to an x ray; it can convert that into one standard convertible measure.

Each of us—and this would surprise a lot of Americans—are living in a soup of radioactivity, about 345 millirems here in Washington, DC. That comes from natural radioactivity of the body. There is potassium, there is phosphorous in the body, which is radioactive and which accounts for about 30 millirems a year. If you dance with your wife, or with anybody, you are exposed to radioactivity from their body and, indeed, from your own body.

A very big source of radioactivity is from radon, which is caused by the decay of radium in the soil and in the rocks, and it comes out as radon, which is a gas.

There is also radioactivity from carbon 14, which comes from a bombardment of the carbon 12 atoms in the atmosphere. And that produces about, I think it is about 40 millirems a year.

Then there is radioactivity from rock and from the granite. Here at the Capitol, on the front steps of the Capitol, I think there is something like an additional 80 millirems of radioactivity, as I recall. Yes. Here it is. On the front portico of the Supreme Court there are 75 millirems. In the interior of the Lincoln Memorial there are 75. The sidewalk in front of the White House has 90 to 115 millirems. Beside the reflecting pool there are 115 to 150 millirems. Get this, the hearing room in the Dirksen Building is 250 millirems. Worst of all, the doorway of the Library of Congress has 380 millirems.

Or to put it another way, if you fly from Washington to Colorado, you increase your millirems by over 100 because the natural background radiation in Colorado or Wyoming or New Mexico or Utah or most any of those mountain States is over 100 millirems greater than that which you receive here in Washington. By the way, the pilot who flies that one flight to get there, he receives an additional 5 millirems. So we are in a soup of millirems. The body is subjected to literally millions of intrusions of radioactivity each day.

So why did we set the limit at 100 millirems? First of all, because there is absolutely no scientific danger in this amount of radioactivity. To quote from the Health Physics Society's statement of position in January 1996, they stated that ''There is substantial and convincing scientific evidence for health risks at high dose. Below 10 rems''—that is 100 times the 100 millirem measure we are talking about—''risks of health effects are either too small to be observed or are nonexistent.''

Let me repeat that. ''Below 10 rems,'' which is 100 times the limit we propose in this bill, ''. . . health effects are either too small to be observed or are nonexistent.'' That is according to the Health Physics Society in January 1996. It is based on a wealth of studies.

For example, in 1991, a study by the Johns Hopkins University of 700,000 shipyard workers showed that cancer deaths were significantly lower among workers exposed to more than 500 millirems than among workers exposed to less than 500 millirems or among the general population. The 700,000 workers, if they were exposed to more than 500 millirems, are more healthy, with less cancer than those exposed to less.

Why is this? Well, the scientific world believes there is a phenomenon whereby exposure to low levels of radioactivity excite enzymes in the body

which, in turn, are protective of the body from further radioactivity, called hormesis, the phenomenon which they describe. We are not basing our limits here on the phenomenon of hormesis; however, it is in fact a well-documented scientific theory at this point.

In any event, the 100-millirem amount which we propose here is well within the natural variations. As I say, it is less than the change you would get just by moving to Colorado or to Wyoming. Believe me, there are no signs at the Denver airport—I was just there—that say, ''Warning. Danger. You are now getting more than 100 millirems more than you would get in Washington, DC.''

Why is this so important? Because the question is, can you build a repository if you make these assumptions of drilling these drill holes down that they go down into the water table and then you have these minuscule amounts at 15 millirems? Then the assumptions you make make it unachievable. There are also other assumptions that would be very important; that is, where you assume the drill hole would be drilled. Is it through the mountain or is it where people would farm or how far away? But we do not deal with that question. But we do deal with that amount, which we believe makes this entirely safe and within the normal limits to which people are exposed.

I also point out, Mr. President, that the 100-millirem amount is the same amount which has been adopted by the Nuclear Regulatory Commission as the amount which you should limit nuclear plants to. The International Commission on Radiological Protection in 1990 recommended that the annual effective dose from practices be limited to no more than 100 millirems per year. The National Council on Radiation Protection on Measurements also adopted the 100-millirem limit. As I said, the U.S. Nuclear Regulatory Commission had 100 millirems. Indeed, the EPA in their Radiation Protection Guidance for Exposure of General Public in 1994 recommends an effective dose from all manmade sources to be no more than 100 millirems a year.

So, Mr. President, I believe it is entirely proper to set this level at that amount, and it is entirely necessary in order to get this facility built.

Mr. President, I remember when we first passed the Nuclear Waste Policy Act. At that time the act called for characterizing three different sites. Characterizing means determining the suitability of three different sites for selection of a final facility. The three sites at that time were in the State of Washington, in the State of Texas, and Yucca Mountain. The estimate of the cost of that characterization at that time was $60 million per site, which seemed to me to be an extraordinarily expensive amount just to determine the suitability of the site.

In the ensuing years, Yucca Mountain was selected legislatively as the site to use, but the cost of characterization kept going up. By 1984, I believe it was, the cost had risen to $1.2 billion to characterize that site. The cost has now gone, according to the latest estimate, to $6.3 billion to characterize the Yucca Mountain site. Over $5 billion has been spent. I must tell you, Mr. President, that a great deal of that money has been really wasted. I mean, they have gone to such incredible lengths.

There is the desert tortoise. I care about the desert tortoise. It is a threatened species. But they have environmentalists that put radio collars and have satellites checking on where the desert tortoise is going, spending millions of dollars; people, especially dedicated environmentalists, working out there on the desert tortoise. You know, when you do that across the board, with some of the other heroic things they have done, it is just incredible. What we are saying, Mr. President, is we need to get on with the business of building this facility or making a decision on what we are going to do on the facility.

People have criticized the Department of Energy for waste in this facility. I believe, Mr. President, much of the blame for these escalating costs for this tremendous waste lies right here with the Congress.

We have not been willing to learn what this whole issue is about. We have been willing to accept any scare story that anybody says, and in the process keep putting it off year after year. For the editorials and some of the criticism to say we are rushing to judgment on this issue, when we have known the solutions for years and we keep putting it off because each year is somebody's election year—this year it is a Presidential election year. Last year, one of the Senators was up for reelection. It is that way every time.

Mr. President, we have reached a crisis situation, politically, on this issue. Now pending in the D.C. Court of Appeals is litigation which seeks to declare invalid the contracts underlying whole Nuclear Waste Policy Act, the 1-mill fee that is collected on nuclear plants in order to build these facilities, and it puts at risk—I think we have about a $5 billion accumulated fund which would be at risk if the D.C. circuit is waiting to see what Congress does. Frankly, it is my guess that is exactly why they have been delaying this decision past what is their normal schedule of rendering decisions. If they are waiting for the Congress to act or to determine whether the Congress acts, and if we fail to act in Congress, then we may have a full-scale crises on our hands, because they may well declare the contracts to be invalid.

If they do that, then it is 76 sites around the country in 34 States and, in turn, we would see a real reaction from the people in 34 States that begin to realize they are being victimized as having a site for nuclear waste.

Mr. President, what we propose is a system that will work. Construction on the interim facility would not begin until 1999. Construction on the permanent facility would not begin until considerably after that. We have high confidence Yucca Mountain will be considered suitable. If it is not, we need to determine that just as soon as possible and move on to another permanent facility.

Mr. President, what we propose in this legislation is reasonable. It is necessary. Believe me, Mr. President, it would be irresponsible to do otherwise. The problem is not going to go away. There are upwards of 40,000 metric tons of nuclear waste around the country today and additional nuclear waste is being generated each and every day. It is not a problem that goes away. It is not a problem that is being dealt with today. The interim storage facility would be much safer than keeping it on site. The permanent facility will be better still.

Mr. President, we need to get on with this process and pass this legislation. I hope the Congress will do the responsible thing, and I hope we will pass this legislation at the appropriate time.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. JOHNSTON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

RECESS

The PRESIDING OFFICER. Under the previous order, the Senate will now stand in recess until the hour of 2:15 p.m.

Thereupon, the Senate, at 12:29 p.m., recessed until 2:14 p.m.; whereupon, the Senate reassembled when called to order by the Presiding Officer [Mr. COATS].

NUCLEAR WASTE POLICY ACT OF 1996—MOTION TO PROCEED

The Senate continued with the consideration of the motion to proceed.

The PRESIDING OFFICER. Who yields time?

Mr. CRAIG. Mr. President, over the course of the last good number of days, I believe the American public has grown increasingly aware of the fact that the Senate has been brought to a near halt by Senators who have made every effort to use the rules, as they are entitled to in the Senate, to not allow this Senate or this Congress to consider a very important piece of national policy. That policy rests on how we, as a country, will deal with the issue of nuclear waste.

Every other country in the world that uses nuclear energy to fuel its factories and light its lights has determined that a critical part of the whole of the use of nuclear energy is to adequately handle and manage the waste